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10/763,122

01/22/2004

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EXAMINER

CHEN, CHIA WEI A

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

09/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/763,122

Applicant(s)

KANAI, MASAHIRO

Examiner

Chia-Wei A. Chen

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6 and 7 is/are rejected.
- 7) ☒ Claim(s) 3,5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/20/2004 10/20/2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The references listed on the Information Disclosure Statement filed on ... and ... have been considered by the examiner (see attached PTO/SB/08).

### ***Claim Objections***

3. Claims 2 and 5 are objected to because of the following informalities:

As to claim 2, the fourth line of the claim states: "...based on which selection signal..." The "which" should be changed into an "a." Thus, claim 2 should read: "...based on a selection signal..."

As to claim 5, claim 5 should depend on claim 2 instead of claim 1. Claim 1 does not disclose a second output circuit. Claim 2 discloses a second output circuit. Claim 5 currently depends from claim 1, but it is understood that this claim should depend from claim 2.

Appropriate correction is required.

### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 5 recites the limitation "the second output circuit" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests to change the dependency of claim 5 from claim 1 to claim 2 to obviate the 112, 2<sup>nd</sup> rejection.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4, 6, 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Krymski et al. (US 6,809,766 B1).

As to claim 1, Krymski et al. teaches an image processing device, in figure 1, that reads an image signal from a solid-state image-pickup element where a plurality of unit pixels including a transistor for detecting a light signal and a photo diode are arranged in a matrix (col. 3, lines 5-10), the device comprising:

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- a first shift register (1602, Fig. 16A) connected to a line of the matrix for reading out an image signal, the first shift register selecting a line where a signal in response to carriers accumulated in an accumulation state for generating carriers in the photo diode in response to received light is read out (col. 4, lines 44-48);
- a second shift register (1604, Fig. 16A) connected to a line for clearing an image signal, the second shift register selecting a line for clearing an image signal where residual carriers in the solid-state image-pickup element are discharged from the solid-state image-pickup element (col. 4, lines 60-65); and
- a first output circuit (control circuit 1608, Fig. 16A) that outputs a reset signal to the first shift register when a direction of scanning lines of the matrix is changed (control circuit initializes the read shift register with READ\_INI signal; col. 4, lines 44-48).

As to claim 2, Krymski et al. teaches the image processing device according to claim 1, further comprising: a second output circuit (control circuit 1608, Fig. 16A) that outputs shift data applied to a line for reading out an image signal, based on which selection signal for selecting a line for reading out an image signal is output, to the first shift register, when a number of lines between the line for reading out an image signal and the line for clearing an image signal is equal to or less than a total number of lines in the matrix and a direction of the scanning lines of the matrix is changed (signal ROW\_EN is pulsed to sequentially select the rows; col. 4, lines 49-52).

As to claim 4, Krymski et al. teaches the image-processing device according to claim 1, further comprising: a third output circuit (multiplexer 1706, Fig. 16A) that outputs a reset signal to the second shift register when a direction of scanning lines of the matrix is changed (col. 5, lines 54-58).

As to claim 6, this claim only differs from claim 1 in that claim 1 is an apparatus claim whereas claim 6 is a method. Thus, the method of claim 6 is analyzed as previously discussed in claim 1.

As to claim 7, this claim only differs from claim 1 in that the preamble of claim 1 is moved to the body of claim 7. Thus, the apparatus of claim 7 is analyzed as previously discussed in claim 1.

### ***Allowable Subject Matter***

9. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Roberts (US 5,541,654) discloses a focal plane array imaging device with random access architecture.

Fossum (US 6,847,398 B1) discloses a latched row logic for a rolling exposure snap.

Kaplinsky et al. (US 7,142,234 B2) discloses a method for mismatch detection between the frequency of illumination source and the duration of optical integration time for imager with rolling shutter.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chia-Wei A. Chen whose telephone number is 571-270-1707. The examiner can normally be reached on Monday - Friday, 7:30 - 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CC  
9/4/2007



NGOE-YEN VU  
SUPERVISORY PATENT EXAMINER